

WEST

Generate Collection

L3: Entry 7 of 13

File: USPT

Oct 13, 1998

DOCUMENT-IDENTIFIER: US 5821069 A

TITLE: Method for determining tyrosine kinase in a sample

BSPR:

Protein tyrosine kinases (PTKs) are structurally well suited to a role intracellular signal transduction. Many growth factor receptors, for example, transduce the extracellular stimulus they receive through interaction with their cognate ligand via an intracellular tyrosine kinase domain. At least one of the non-receptor PTKs, namely LCK, is believed to mediate the transduction in T-cells of a signal from the interaction of a cell-surface protein (CD4) with a cross-linked anti-CD4 antibody.

BSPR:

The broader family of PTKs can be sub-divided on the basis of structural parameters of individual members. For example, the src family of PTKs now numbers 8 members (Marth et al, 1985; Nishizawa et al, 1986; Semba et al, 1986; Martinez et al, 1987; Sukeyawa et al, 1987; Yamanishi et al, 1987; Hotzman et al, 1987; Dymecki et al, 1990), each with a characteristic complement of extra-catalytic domains, including an SH2, an SH3 domain and a variable ligand binding domain. It is clear that a process of gene duplication has taken place in this case, so that the evolutionarily successful thematic structure of this family can be employed in a variety of cellular contexts. Similar PTK structural sub-families exist based around the FGF receptor and the CSF-1 receptor (reviewed in Wilks, 1990).

DRPR:

FIG. 6 is a graphical representation of a phylogenetic analysis of the two JAK1 Kinase-like domains. The tree building concept of Fitch and Margoliash (1967) as implemented by Feng and Doolittle (1987) and Hanks et al (1988) was used to generate a phylogenetic tree as described in Example 1. In each case the catalytic domain alone was used for comparison. The two kinase related domains of the JAK1 protein were compared independently. Branch order is a function of structural similarity, branch length a function of sequence identity. The abbreviations used are: SRC= c-src; YES= c-Yes; FES= c-fes; CSF1-R= Colony stimulating factor-1 receptor; KIT= c-kit; PDGF-R= Platelet derived growth factor receptor-A; RET= c-RET; ANP-A= Atrial natriuretic peptide receptor-A; ANP-B= Atrial natriuretic peptide receptor-B; MOS= c-mos; PBS2= polyxin B antibiotic resistance gene product; STE7= sterile mutant wild-type allele gene product; JAK1/= Domain-1 of Human JAK1;

JAK1 /2= PTX domain of Human JAK1.

DEPR:

The sequences N-terminal to Domain-1 bear no homology to any other portion of a previously described protein kinase. Specifically, no homology was detected to the SH2 domain described for the cytoplasmic PTKs such as c-fes/fps (Sadowski et al, 1986) GAP (Trahey et al, 1988) and the phospholipase-C family of proteins (Suh et al, 1988). This is a particularly interesting observation since no other non-receptor PTK has been described which lacks this feature. A hydrophilicity plot failed to demonstrate the present of a hydrophobic domain characteristic of the growth factor receptor type of PTK (FIG. 3b) suggesting that this protein is wholly intracellular like other members of the non-receptor class of PTKs. The one outstanding feature of the JAK1 hydropathy plot is the highly hydrophilic sequence between residues 320-350. This sequence is not conserved in the murine JAK2 protein, however, its remarkable nature suggests that it may well be involved in some function of the JAK1 protein.

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L3: Entry 4 of 13

File: USPT

Jun 8, 1999

US-PAT-NO: 5910426

DOCUMENT-IDENTIFIER: US 5910426 A

TITLE: Protein tyrosine kinase

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wilks; Andrew Frederick	Doneaster East	N/A	N/A	AUX
Ziemiecki; Andrew	Berne	N/A	N/A	GBX
Harpur; Ailsa	Mooroolbark	N/A	N/A	AUX

US-CL-CURRENT: 435/68.1; 530/402

CLAIMS:

We claim:

1. A method for phosphorylating a protein, comprising contacting said protein with a phosphorylating effective amount of an isolated mammalian polypeptide comprising an amino acid sequence encoded by a nucleic acid molecule, the complementary sequence of which hybridizes to SEQ ID NO: 1 or to SEQ ID NO: 2, at 65.degree. C., 6XSSC, 1% SDS, with a final wash of 0.2.times.SSC, 0.1% SDS, at 65.degree. C., wherein said polypeptide comprises multiple catalytic domains, but no SH2 domains, for a time and under conditions sufficient for said protein to be phosphorylated.
2. The method of claim 1, wherein the mammalian polypeptide is a human protein or a mouse protein.
3. The method of claim 1, wherein said polypeptide comprises two protein kinase catalytic domains.
4. The method of claim 1, wherein said polypeptide has molecular weight of from about 120,000 daltons to about 140,000 daltons as determined by SDS-PAGE.
5. The method of claim 1, wherein said polypeptide has a molecular weight of from about 100,000 daltons to about 200,000 daltons as determined by SDS-PAGE.
6. The method of claim 1, wherein said polypeptide consists of the amino acid sequence set forth in SEQ ID NO: 24.
7. The method of claim 1, wherein said polypeptide consists of the amino acid sequence set forth in SEQ ID NO: 25.

WEST

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L3: Entry 9 of 13

File: USPT

Feb 10, 1998

US-PAT-NO: 5716818

DOCUMENT-IDENTIFIER: US 5716818 A

TITLE: Protein tyrosine kinase

DATE-ISSUED: February 10, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wilks; Andrew Frederick	Doneaster East	N/A	N/A	AUX
Ziemiecki; Andrew	Berne	N/A	N/A	CHX
Harpur; Ailsa	Mooroolbark	N/A	N/A	AUX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Ludwig Institute For Cancer Research	New York	NY	N/A	N/A	02

APPL-NO: 8/ 446010

DATE FILED: May 19, 1995

PARENT-CASE:

This application is a divisional of Ser. No. 08/064,067 filed as PCT/US91/08889, Nov. 26, 1991.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
AU	PK3594/90	November 28, 1990

INT-CL: [6] C12N 9/12, C07K 7/00, C07K 14/47

US-CL-ISSUED: 435/194; 530/350, 530/326, 530/328, 530/329

US-CL-CURRENT: 435/194; 530/326, 530/328, 530/329, 530/350

FIELD-OF-SEARCH: 435/194, 530/350, 530/352, 530/329, 530/326, 530/328, 530/324, 530/325

REF-CITED:

OTHER PUBLICATIONS

Hanks et al. (1988) Science 2451: 42-52.

Firmbach-Kraft et al. (1990) Oncogene 5: 1329-1336.

Bernards (1991) Oncogene 6: 1185-1189.

Harpur et al. (1992). Oncogene 7: 1347-1353.
Wilks (1989) Proc. Natl. Acad. Sci. 86: 1603-1607.

ART-UNIT: 184

PRIMARY-EXAMINER: Patterson, Jr.; Charles L.

ASSISTANT-EXAMINER: Bugaisky; Gabriele E.

ATTY-AGENT-FIRM: Felfe & Lynch

ABSTRACT:

The present invention is directed to a novel protein tyrosine kinase comprising a polypeptide having multiple protein kinase catalytic domains and, more particularly, two kinase catalytic domains and to genetic sequences encoding same. Two such kinases are described and designated JAK1 and JAK2.

14 Claims, 37 Drawing figures

WEST

Generate Collection

L3: Entry 11 of 13

File: USPT

Aug 19, 1997

US-PAT-NO: 5658791

DOCUMENT-IDENTIFIER: US 5658791 A

TITLE: Antibodies which specifically bind to proteins having tyrosine kinase activity, wherein said proteins have more than one tyrosine kinase domain, and no SH2 domains

DATE-ISSUED: August 19, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wilks; Andrew Frederick	Doneaster East	N/A	N/A	AUX
Ziemiecki; Andrew	Berne	N/A	N/A	CHX
Harpur; Ailsa	Mooroolbark	N/A	N/A	AUX

US-CL-CURRENT: 435/331; 435/338, 530/387.9, 530/388.1,
530/388.25, 530/388.26, 530/388.85, 530/389.1

CLAIMS:

We claim:

1. Isolated antibody which specifically binds to a protein which (i) has tyrosine kinase activity, (ii) has more than one protein kinase domain, (iii) has no src homology 2 (SH2) domains, and (iv) is encoded by SEQ ID NO: 1 or SEQ ID NO: 2.
2. The isolated antibody of claim 1, wherein said antibody is a monoclonal antibody.
3. Hybridoma cell line which produces a monoclonal antibody which (i) specifically binds to a protein which has tyrosine kinase activity, (ii) has more than one protein kinase domain, (iii) has no src homology 2 domains, and (iv) is encoded by SEQ ID NO: 1 or SEQ ID NO: 2.
4. The antibody of claim 1, which specifically binds to the protein encoded by SEQ ID NO: 1.
5. The antibody of claim 1, which specifically binds to the protein encoded by SEQ ID NO: 2.
6. The antibody of claim 1, which specifically binds to the peptide of SEQ ID NO: 3.
7. The antibody of claim 1, which specifically binds to the peptide of SEQ ID NO: 4.
8. The antibody of claim 1, which specifically binds to the peptide of SEQ ID NO: 11.
9. The antibody of claim 1, which specifically binds to the peptide of SEQ ID NO: 12.

WEST**End of Result Set**

Generate Collection

L3: Entry 13 of 13

File: USPT

Nov 14, 1995

US-PAT-NO: 5466596

DOCUMENT-IDENTIFIER: US 5466596 A

TITLE: Tissue specific transcriptional regulatory element

DATE-ISSUED: November 14, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Breitman; Martin L.	Willowdale	N/A	N/A	CAX
Dumont; Daniel	Oakville	N/A	N/A	CAX
Gradwohl; Gerard G.	Toronto	N/A	N/A	CAX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Mount Sinai Hospital Corporation	Toronto	N/A	N/A	CAX	03

APPL-NO: 7/ 934393

DATE FILED: August 25, 1992

INT-CL: [6] C12N 5/10, C12N 15/11

US-CL-ISSUED: 435/240.2; 435/69.1, 435/70.3, 536/24.1

US-CL-CURRENT: 435/354; 435/69.1, 435/70.3, 536/24.1

FIELD-OF-SEARCH: 536/24.1, 435/69.1, 435/320.1, 435/70.3, 435/240.2

REF-CITED:

OTHER PUBLICATIONS

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ART-UNIT: 185

PRIMARY-EXAMINER: Schwartz; Richard A.

ASSISTANT-EXAMINER: Vogel; Nancy T.

ATTY-AGENT-FIRM: Bereskin & Parr

ABSTRACT:

A novel transcriptional regulatory element which is capable of directing expression of a gene specifically in cells of the endothelial lineage. The transcriptional regulatory element may be used to target expression of a gene in cells of the endothelial lineage.

10 Claims, 15 Drawing figures

WEST

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L3: Entry 1 of 13

File: USPT

Feb 15, 2000

DOCUMENT-IDENTIFIER: US 6025192 A
TITLE: Modified retroviral vectors

DEPR:

Retroviral packaging functions comprise gag/pol and env packaging functions. gag and pol provide viral structural components and env functions to target virus to its receptor. Env function can comprise an envelope protein from any amphotropic, ecotrophic or xenotropic retrovirus, including but not limited to MuLV (such as, for example, an MuLV 4070A) or MoMuLV. Env can further comprise a coat protein from another virus (e.g., env can comprise a VSV G protein) or it can comprise any molecule that targets a specific cell surface receptor.

DEPR:

It is well established that the interaction between extracellular signaling molecules (e.g., growth factors) and their receptors occurred over large protein surfaces. The present invention provides a novel screen that allows for rapid identification of peptides in mammalian cells by expressing constrained peptides on the surface of receptor-bearing cells and selecting directly for biological function. A synthetic peptide can be displayed in a mammalian system by replacing one flexible loop of a synthetic peptide display vehicle or cassette, the minibody, with a polylinker into which a library of random oligonucleotides encoding random peptides may be inserted. The resulting synthetic chimera can be tethered to the membrane so that it appears on the cell surface by providing a heterologous membrane anchor such as that derived from the c. elegans decay accelerating factor (DAF). This chimeric protein could then serve as an extracellular peptide display vehicle. Peptide libraries in a retroviral vector could be screened directly for the ability to activate receptors, or screening in vivo could follow a pre-selection of a mini-library by phage display.

DEPC:

12.2.1 STRUCTURE OF THE Cre AND CreT VIRUSES

WEST

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L3: Entry 4 of 13

File: USPT

Jun 8, 1999

US-PAT-NO: 5910426

DOCUMENT-IDENTIFIER: US 5910426 A

TITLE: Protein tyrosine kinase

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wilks; Andrew Frederick	Doneaster East	N/A	N/A	AUX
Ziemiecki; Andrew	Berne	N/A	N/A	GBX
Harpur; Ailsa	Mooroolbark	N/A	N/A	AUX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Ludwig Institute for Cancer Research	New York	NY	N/A	N/A	02

APPL-NO: 9/ 066208

DATE FILED: April 24, 1998

PARENT-CASE:

This application is a divisional of Ser. No. 08/805,445, filed Feb. 25, 1997, now U.S. Pat. No. 5,821,069, which is a divisional of Ser. No. 08/446,038, filed May 19, 1995, now U.S. Pat. No. 5,658,791, which is a divisional of Ser. No. 08/064,067 filed Jun. 30, 1993 which is the national stage of PCT/US91/08889 filed Nov. 26, 1991, now U.S. Pat. No. 5,852,184.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
AU	PK3594/90	November 28, 1990

INT-CL: [6] C12P 21/06, C07K 1/00

US-CL-ISSUED: 435/68.1; 530/402

US-CL-CURRENT: 435/68.1; 530/402

FIELD-OF-SEARCH: 435/68.1, 530/402

ART-UNIT: 162

PRIMARY-EXAMINER: Carlson; Karen Cochrane

ASSISTANT-EXAMINER: Monshipouri; Maryam

ATTY-AGENT-FIRM: Fulbright and Jaworski, LLP

ABSTRACT:

The present invention is directed to a novel protein tyrosine kinase comprising a polypeptide having multiple protein kinase catalytic domains and, more particularly, two kinase catalytic domains and to genetic sequences encoding same. Two such kinases are described and designated JAK1 and JAK2.

7 Claims, 37 Drawing figures

WEST

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L3: Entry 3 of 13

File: USPT

Dec 7, 1999

US-PAT-NO: 5998187

DOCUMENT-IDENTIFIER: US 5998187 A

TITLE: Receptor tyrosine kinase

DATE-ISSUED: December 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Breitman; Martin L.	Willowdale	N/A	N/A	CAX
Rossant; Janet	Toronto	N/A	N/A	CAX
Dumont; Daniel J.	Oakville	N/A	N/A	CAX
Yamaguchi; Terry P.	Toronto	N/A	N/A	CAX
Breitman; Jo-Ann	Toronto	N/A	N/A	CAX

ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Mount Sinai Hospital Corporation	Toronto	N/A	N/A	CAX	03

APPL-NO: 8/ 838957

DATE FILED: April 23, 1997

PARENT-CASE:

This application is a division of application Ser. No. 08/278,089, filed Jul. 20, 1994, now U.S. Pat. No. 5,681,714, which is a continuation-in-part of U.S. Ser. No. 08/235,408, filed Apr. 29, 1994, now abandoned, which is a continuation-in-part of U.S. Ser. No. 07/921,795, filed Jul. 30, 1992, now abandoned.

INT-CL: [6] C07K 14/705

US-CL-ISSUED: 435/194; 435/69.1, 435/69.7, 530/350, 530/402

US-CL-CURRENT: 435/194; 435/69.1, 435/69.7, 530/350, 530/402

FIELD-OF-SEARCH: 530/350, 530/300, 530/326, 530/402, 435/194, 435/69.1, 435/69.7

REF-CITED:

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
WO94/00469	January 1994	WOX
WO96/11664	April 1996	WOX
WO96/11269	April 1996	WOX

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ART-UNIT: 166

PRIMARY-EXAMINER: Teng; Sally

ATTY-AGENT-FIRM: Merchant & Gould P.C.

ABSTRACT:

Novel receptor tyrosine kinase protein and isoforms thereof which are expressed in cells of the endothelial lineage, and DNA segments encoding the novel protein and isoforms thereof are disclosed. Methods for identifying ligands which are capable of binding to the receptor protein and methods for screening for agonist or antagonist substances of the interaction of the protein and a ligand are also disclosed.

5 Claims, 25 Drawing figures

WEST[Generate Collection](#)**Search Results - Record(s) 1 through 13 of 13 returned.**☐ 1. Document ID: US 6025192 A

L3: Entry 1 of 13

File: USPT

Feb 15, 2000

US-PAT-NO: 6025192

DOCUMENT-IDENTIFIER: US 6025192 A

TITLE: Modified retroviral vectors

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 2. Document ID: US 6025157 A

L3: Entry 2 of 13

File: USPT

Feb 15, 2000

US-PAT-NO: 6025157

DOCUMENT-IDENTIFIER: US 6025157 A

TITLE: Neurturin receptor

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 3. Document ID: US 5998187 A

L3: Entry 3 of 13

File: USPT

Dec 7, 1999

US-PAT-NO: 5998187

DOCUMENT-IDENTIFIER: US 5998187 A

TITLE: Receptor tyrosine kinase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 4. Document ID: US 5910426 A

L3: Entry 4 of 13

File: USPT

Jun 8, 1999

US-PAT-NO: 5910426

DOCUMENT-IDENTIFIER: US 5910426 A

TITLE: Protein tyrosine kinase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 5. Document ID: US 5882923 A

L3: Entry 5 of 13

File: USPT

Mar 16, 1999

US-PAT-NO: 5882923

DOCUMENT-IDENTIFIER: US 5882923 A

TITLE: Glial cell line-derived neurotrophic factor
regulation of ureteric budding and growth

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 6. Document ID: US 5852184 A

L3: Entry 6 of 13

File: USPT

Dec 22, 1998

US-PAT-NO: 5852184

DOCUMENT-IDENTIFIER: US 5852184 A

TITLE: Protein tyrosine kinase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 7. Document ID: US 5821069 A

L3: Entry 7 of 13

File: USPT

Oct 13, 1998

US-PAT-NO: 5821069

DOCUMENT-IDENTIFIER: US 5821069 A

TITLE: Method for determining tyrosine kinase in a sample

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 8. Document ID: US 5808036 A

L3: Entry 8 of 13

File: USPT

Sep 15, 1998

US-PAT-NO: 5808036

DOCUMENT-IDENTIFIER: US 5808036 A

TITLE: Stem-loop oligonucleotides containing parallel and
antiparallel binding domains

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 9. Document ID: US 5716818 A

L3: Entry 9 of 13

File: USPT

Feb 10, 1998

US-PAT-NO: 5716818

DOCUMENT-IDENTIFIER: US 5716818 A

TITLE: Protein tyrosine kinase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw Desc	Image
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☐ 10. Document ID: US 5681714 A

L3: Entry 10 of 13

File: USPT

Oct 28, 1997

US-PAT-NO: 5681714

DOCUMENT-IDENTIFIER: US 5681714 A

TITLE: Nucleic acid encoding tek receptor tyrosine kinase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw Desc	Image
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☐ 11. Document ID: US 5658791 A

L3: Entry 11 of 13

File: USPT

Aug 19, 1997

US-PAT-NO: 5658791

DOCUMENT-IDENTIFIER: US 5658791 A

TITLE: Antibodies which specifically bind to proteins having tyrosine kinase activity, wherein said proteins have more than one tyrosine kinase domain, and no SH2 domains

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw Desc	Image
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☐ 12. Document ID: US 5514546 A

L3: Entry 12 of 13

File: USPT

May 7, 1996

US-PAT-NO: 5514546

DOCUMENT-IDENTIFIER: US 5514546 A

TITLE: Stem-loop oligonucleotides containing parallel and antiparallel binding domains

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw Desc	Image
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☐ 13. Document ID: US 5466596 A

L3: Entry 13 of 13

File: USPT

Nov 14, 1995

US-PAT-NO: 5466596

DOCUMENT-IDENTIFIER: US 5466596 A

TITLE: Tissue specific transcriptional regulatory element

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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Term	Documents
RECEPTOR.USPT.	39990
RECEPTORS.USPT.	27099
(1 AND RECEPTOR).USPT.	13

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SH2S.USPT.	5
SH3.USPT.	475
SH3S	0
(4 AND (SH3 OR SH2)).USPT.	2

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US Patents Full-Text Database

JPO Abstracts Database

EPO Abstracts Database

Derwent World Patents Index

IBM Technical Disclosure Bulletins

14 and (sh2 or sh3)

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USPT	14 and (sh2 or sh3)	2	<u>L7</u>
USPT	14 and phenotype	4	<u>L6</u>
USPT	13 and (cell size or cell shape)	0	<u>L5</u>
USPT	13 and cell proliferation	6	<u>L4</u>
USPT	11 and receptor	13	<u>L3</u>
USPT	11 receptor	1	<u>L2</u>
USPT	c-ret or c ret or cret	90	<u>L1</u>

WEST**Generate Collection****Search Results - Record(s) 1 through 2 of 2 returned.**

- ☐
1. Document ID: US 5998187 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMIC	Draw Desc	Image
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- ☐
2. Document ID: US 5681714 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMIC	Draw Desc	Image
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Term	Documents
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SH2S.USPT.	5
SH3.USPT.	475
SH3S	0
(4 AND (SH3 OR SH2)).USPT.	2

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